

THE
URBAN DISTRICT COUNCIL
OF
WIRKSWORTH.

ANNUAL
REPORT

OF THE
MEDICAL OFFICER OF HEALTH
FOR
THE YEAR 1896.

PRINTED BY ORDER OF THE COUNCIL.

J. GRATTON, CLERK.

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MEDICAL OFFICER OF HEALTH OF THE
URBAN DISTRICT COUNCIL OF
WIRKSWORTH.

*To the Chairman and Members of the Urban District Council
of Wirksworth.*

Gentlemen,—I beg to submit my report for the year 1896. The area of your district is 3020 acres, and it contains 987 houses (931 inhabited, and 56 uninhabited), shewing an increase in the last four years of 35.

From the rainfall and temperature records, for which I am indebted to Mr. Gibbs, of Bridge House, it will be seen that January and February were mild and dry, with very little frost or snow, and a small amount of rain; March was mild and wet; April dry and windy; May hot and very dry, with a dry fresh wind; June and July hot, with rain on 26 days; August fair, cloudy, and cool; September excessively wet (6·38 inches in 27 rainy days); October wet, stormy, and cold; November cold and fine; December very wet (5·85 inches in 22 rainy days). The temperature records are very even throughout the year, and the mean for the year is 47·6° F., or about 1·5° F. higher than in 1895. The total rainfall in the year was 32·4 inches, in 184 rainy days, as compared with 32·26 inches, in 150 rainy days, in 1895.

Under the Infectious Diseases Notification Act, 1889, there were 20 notifications, viz.:—Scarlet Fever, 16; Typhoid Fever, 2; Diphtheria, 1; Erysipelas, 1.

The 16 cases of Scarlet Fever, of which two died, occurred in eight houses, and were scattered over the year. Of the eight houses infected, one was disinfected by the Council's officers at private expense, four were disinfected by the Council's officers at the Council's expense, under the Infectious Diseases (Prevention) Act (which came into operation in December, 1893), and one house was still infected at the end of the year. The disinfection consisted in washing the rooms with corrosive sublimate solution (1 in 1000), sulphuring them, stripping paper off the walls, scrubbing the floors

and woodwork, and boiling all clothing, &c., that could be boiled. The district has been free from Scarlet Fever in two years only of the last sixteen, viz., 1886 and 1894, and in that time this disease has been responsible for 16 deaths, mostly under five years of age. Nothing short of hospital isolation can be relied upon to stamp it out, and this you may hope to do when your Infectious Hospital district has completed its arrangements for receiving patients.

The two cases of Typhoid Fever occurred in different parts of the district, and had no connection with each other. In the one case no cause for the outbreak was found, and the house, drains, milk and water supply were satisfactory. There was reason to suppose that the disease had been contracted outside the district. In the other case, although the exact cause of the disease could not be determined, the house drains were found in an unsanitary condition, and were put in order to the satisfaction of your Inspector.

The case of Diphtheria, in August, proved fatal. The house, drains, closet, water and milk supply were found satisfactory, and the cause of the disease could not be traced. The same child was notified on October 22nd, 1895, as suffering from Scarlet Fever; the connection between that disease and Diphtheria being that Scarlet Fever leaves more or less temporary damage to the mucous membrane of the throat, and in this manner predisposes to the reception of the Diphtheria poison.

Whooping Cough was prevalent in the first four months of the year, and was responsible for four deaths all under five years of age.

There were a few cases of Measles in September. The schools were advised, and children from infected houses were kept at home. In consequence of the number of cases, on October 6th the schools were closed for four weeks, and notices were issued warning the public of the danger and infection of measles. On November 3rd the schools re-opened, but owing to the continued prevalence of Measles were closed for a second period of four weeks on December 13th. The infection was of extra intensity, and three deaths (all under five years of age) were caused by this disease. As in previous epidemics it first emptied one elementary school and in about a month the other. Epidemics of Measles have occurred in the district in the following years, 1882, 1884, 1887, 1889, 1891, 1893, and 1896, while in the intervals we were practically free. In 1882, 1884, 1889, 1893, and 1896 there was an epidemic of Whooping Cough, sometimes before sometimes after measles. During the late epidemic of Measles there were a few cases of Mumps.

The population in 1896 is estimated at 3750. There were 118 births (62 males, 56 females), making a birth-rate per 1000 of 31·4, which is somewhat above the average; and the death-rate of children under one year of age to 1000 births was 84·66, almost the

lowest recorded since 1881. Last year the rate was 148 per 1000, and from the certified causes of death I had occasion to remark on the frightful effects of improper feeding of infants amongst the poor. Your late Chairman freely distributed printed instructions on the proper feeding of infants; and this year, with a higher birth-rate, we have nearly the lowest rate of infant mortality recorded in the district, with only one death attributed to improper feeding (an illegitimate child, on whom an inquest was held). The following table gives our annual death-rate of children under one year to 1000 births since 1881 :—

| | | | | | | | |
|----------|----------|--------|----------|----------|----------|----------|-------|
| 1881. | 1882. | 1883. | 1884. | 1885. | 1886. | 1887. | 1888. |
| 115·8 .. | 148·7 .. | 188 .. | 132 .. | 115 .. | 168·3 .. | 90·9 .. | 106·8 |
| 1889. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. | 1896. |
| 165 .. | 130·4 .. | 99 .. | 145·6 .. | 194·6 .. | 82·4 .. | 148·1 .. | 84·66 |

The Death rate was 17·06 per 1000 population, the total deaths belonging to the district being 64 (33 males, 31 females), of which 20 were over 65 years of age. Seven persons died over 70, six over 80, and one over 90. Ten children died under one year, of whom four were certified as premature births; and there were ten deaths between the ages of one and five years, of which seven were due to measles or whooping-cough. Had it not been for the epidemics of measles and whooping-cough our death rate for the year would have been 15 per 1000 population, the lowest recorded since 1878. The following is our Zymotic death rate per 1000 population for the last sixteen years :—

ZYMOTIC DEATH RATE PER 1000 LIVING.

(Years in which measles and whooping-cough were prevalent are marked M-W; measles, M; whooping-cough, W.)

| | | | | | | | |
|---------|---------|---------|---------|---------|--------|----------|-------|
| 1881. | 1882. | 1883. | 1884. | 1885. | 1886. | 1887. | 1888. |
| | M-W | M | M-W | W | | M (mild) | |
| ·54 .. | 3·51 .. | 3·24 .. | 1·35 .. | 2·97 .. | ·81 .. | 0 .. | ·27 |
| 1889. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. | 1896. |
| M-W | | M | | M-W | | | M-W |
| 2·27 .. | ·81 .. | 1·07 .. | 1·07 .. | 3·74 .. | ·26 .. | ·80 .. | 2·66 |

From the above table it appears that measles and whooping-cough are not the trivial complaints they are popularly considered.

The death-rate from Phthisis per 1000 living was 1·06, the lowest recorded since 1881, which is shewn in the following table :—

PHTHISIS DEATH-RATE PER 1000 LIVING.

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|-------|
| 1881. | 1882. | 1883. | 1884. | 1885. | 1886. | 1887. | 1888. |
| 1·08 .. | 1·62 .. | 2·16 .. | 4·68 .. | 1·62 .. | 1·35 .. | 1·08 .. | 1·62 |
| 1889. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. | 1896. |
| 2·97 .. | 2·16 .. | 1·87 .. | 1·60 .. | 2·67 .. | 1·87 .. | 2·13 .. | 1·06 |

There was no death from accident.

The health of a community may be judged by its death-rate, Zymotic death-rate, infant mortality, and Phthisis death-rate. Allowing for the epidemics of Measles and Whooping Cough, which

have no demonstrated relation to unsanitary conditions, your Council may be congratulated on the health of the district during 1896.

The following is a summary of the sanitary work done in the Inspector of Nuisances department during the year, from which you will see that matters referred to in my last annual report have had attention. Mr. Diver, the Sanitary Inspector, has done his work well.

| | | Inspections and Observations made. | Informal Notices served by Inspector. | Legal Notices by Authority. | Nuisances abated after Notice. |
|---------------------|---------------------------------------|--|---|-----------------------------------|--------------------------------------|
| Dwelling- Houses | { Foul Conditions | 12 | 3 | | 3 |
| | { Structural Defects | 159 | 53 | 1 | 45 |
| | { Overcrowding | 2 | | | |
| | { Unfit for Habitation | 1 | | | |
| | { Lodging-House | 2 | | | |
| | { Bakehouses | 2 | | | |
| | { Slaughter-Houses | 2 | | | |
| | { Ashpits and Privies | 165 | 55 | | 55 |
| | { Deposits of Refuse and Manure | 12 | 2 | | 2 |
| | { Water Closets | 12 | 4 | | 4 |
| House Drainage. | { Defective Traps | 45 | 15 | | 15 |
| | { No Dis-connection | 27 | 9 | | 9 |
| | { Other Faults | 33 | 11 | | 11 |
| | { Water Supply | 264 | 88 | | 88 |
| Totals | | 738 | 240 | 1 | 232 |

Samples of water taken for analysis, 7.

Condemned as unfit for use, 4.

Houses disinfected after infectious disease, 5.

Two houses were dealt with under Section 46, P.H.A., 1875, being in such a filthy and unwholesome condition that the health of the occupiers was endangered thereby.

The water at two houses being suspected, was analysed, and found bad. Your Council sent two further samples to the County Council Analyst, who condemned them, and asked for three more samples, one from the reservoir, one from the main in the Market Place, and one from one of the affected houses. He reported that they were all clear and bright, practically identical in character, free from lead and iron, and well adapted to supply the community. The impurities in the condemned samples were due to local contamination.

Removal of Excreta.—In a town like ours middens are inevitable. Their success depends on proper scavenging arrangements and efficient sanitary supervision, without which they become a nuisance injurious to health. Your Sanitary Inspector estimates the number of privies and cesspools within the town area at between four and five hundred. This implies that the health of

more than half, and the poorer and more overcrowded half, of your community is dependent on the regular and systematic removal of night-soil. Nineteen years ago, under Section 44 of the P.H.A., 1875, your authority adopted byelaws imposing this duty on the householder, and there has been a constant difficulty in enforcing them. In every one of my sixteen annual reports this difficulty has been referred to. Several committees have considered the subject, and made recommendations, which have been sometimes followed by temporary improvement. In 1892 the over-accumulation of night-soil was so enormous that the authority relieved the Sanitary Inspector, for three months, from other duties to devote more time to this matter. In 1896 an effort has been made to keep night-soil regularly removed. The portions of your district known as Wash Green, Bole Hill, Greenhill, and Dale have been systematically inspected from house to house, and a fair condition of cleanliness has been reached. Unless a man devotes his time to inspecting, serving notices, and seeing that they are complied with, either from poverty or carelessness, or want of opportunity, the removal of night-soil from proximity to dwellings will be as much neglected in the future as in the past.

Under Section 42, P.H.A., 1875, the Sanitary Authority may undertake the cleansing of privies, ashpits, and cesspools, and all refuse so collected becomes the property of the Local Authority, to be sold or otherwise disposed of. On September 29th, your Sanitary Committee instructed your Inspector to report, after visiting and enquiring of other Authorities, on the cost and working of this Section. His report is now before you. The cost will not exceed a sixpenny rate, which, to a householder complying with the present bye-laws and rated under £40, will be a saving. The working appears to be simple and the result will be that a constant nuisance, most injurious to health and responsible for high death rates, will be permanently removed.

Water.—The following are your Water Bailiff's monthly statements showing number of gallons per hour flowing into the reservoir at the beginning of each month in 1896:—

| Month. | Gallons per hour. |
|-----------------|-------------------|
| January..... | 5000 |
| February | 5400 |
| March | 4600 |
| April | 6700 |
| May..... | 5200 |
| June | 3970 |
| July..... | 2960 |
| August | 2500 |
| September | 2300 |
| October | 2600 |
| November | 5000 |
| December | 6970 |

In August, September, and October the supply was less than 18 gallons per head per diem.

The Rain measured by Mr. Gibbs, at Bridge House, in 1896, was as follows :—

| | |
|-----------------|---------------------------------|
| January | 1.48 inches in 12 rainy days. |
| February | .94 " " 7 " " |
| March | 3.89 " " 26 " " |
| April | 1.29 " " 15 " " |
| May | .36 " " 4 " " |
| June | 2.99 " " 15 " " |
| July | 1.67 " " 11 " " |
| August | 2.05 " " 12 " " |
| September | 6.38 " " 27 " " |
| October | 3.66 " " 21 " " |
| November | 1.84 " " 12 " " |
| December | 5.85 " " 22 " " |
| Total | 32.4 " " 184 " " |

ANNUAL RAINFALL

At Bridge House, Wirksworth, since 1890.

| | | | |
|------------|---------------|------------|---------------|
| 1890 | 26.67 inches. | 1894 | 29.55 inches. |
| 1891 | 40.66 " | 1895 | 32.36 " |
| 1892 | 28.69 " | 1896 | 32.4 " |
| 1893 | 22.77 " | | |

The Temperatures recorded at Bridge House in 1896 were as follows :—

| Month. | Mean. | Mean Max. | Mean Min. | Highest. | Lowest. |
|-----------------|------------|--------------|--------------|----------|---------|
| January | 39½ | 44 | 34¼ | 54 | 25 |
| February | 38¾ | 44½ | 33 | 52 | 23 |
| March | 42¾ | 48 5-6ths | 37 | 58 | 30 |
| April | 46¾ | 53 | 40½ | 62 | 31 |
| May | 52¾ | 60½ | 44⅙ | 74 | 34 |
| June | 59½ | 67 | 51⅞ | 78 | 42 |
| July | 61 2-10ths | 70 | 53½ | 78 | 40 |
| August | 57⅙ | 63¾ | 50½ | 70 | 42 |
| September | 53¾ | 58⅔ | 49 | 64 | 36 |
| October | 43⅞ | 50 | 37⅔ | 62 | 28 |
| November | 39 4-5ths | 44⅔ | 35 | 53 | 24 |
| December | 37⅔ | 42 | 33½ | 50 | 24 |

Your Council regard with pleasure the successful efforts of the town to comply with the sanitary requirements of the Education Department. Two new schools for infants have been completed during the year at a cost of over £2000, raised by public generosity.

I have the honour to be,


Mr. Chairman and Gentlemen,

Your obedient servant,

A. E. BROSTER.

Wirksworth,

January 30th, 1897.



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